PERSONAL OBSERVATIONS OF AVAIN MOVEMENT PROPOSED SWANTON WIND PROJECT SWANTON, VERMONT

ROCKY RIDGE RAPTORS, MIGRATORY BIRDS Swanton, Vermont

FAIRFIELD POND RAPTORS, MIGRATORY BIRDS, LOONS, EAGLES, CORMORANT Fairfield, Vermont

Photos taken Fall 2015

The Rocky Ridge ridge line, located in Swanton, VT, a migratory bottleneck in Franklin County, Vermont, is part of one of the most important migration flyways in Vermont. Thousands of Canada Geese fly South along this flyway with large numbers roosting at Fairfield Pond in Fairfield, Vermont, and foraging in many corn fields along Route 105 in Swanton adjacent to Rocky Ridge Road the proposed site of the Swanton Wind Project. These photographs are personal observations.

It is our belief that the proposed construction of seven 499' wind turbines on the Rocky Ridge ridge line and the thousands of migratory birds and raptors are not compatible.

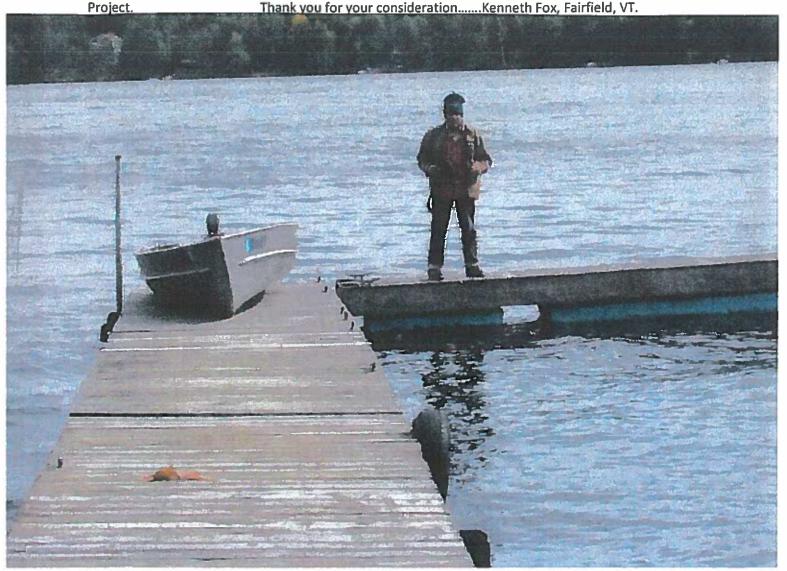
Ken Fox, Fairfield, Vermont



This is a survey of migratory bird activity at Fairfield Pond, Fairfield, Vermont and the surrounding watershed and wetlands. The purpose was to study flight patterns to and from Fairfield Pond in the area of the turbines proposed by Swanton Wind. The survey took place from Sept 21-Dec21, 2016. It ran concurrently to one conducted for the developer by Stantec. That survey completed Oct 26, 2016. Due to the unusual warmth this fall, it was deemed necessary to extend our observations to see increased bird activity as temperatures fell. Flight activity was most pronounced at the pond during the Nov.-Dec. period. The survey was conducted at seven locations around the pond and one location at Rocky Ridge Rd.

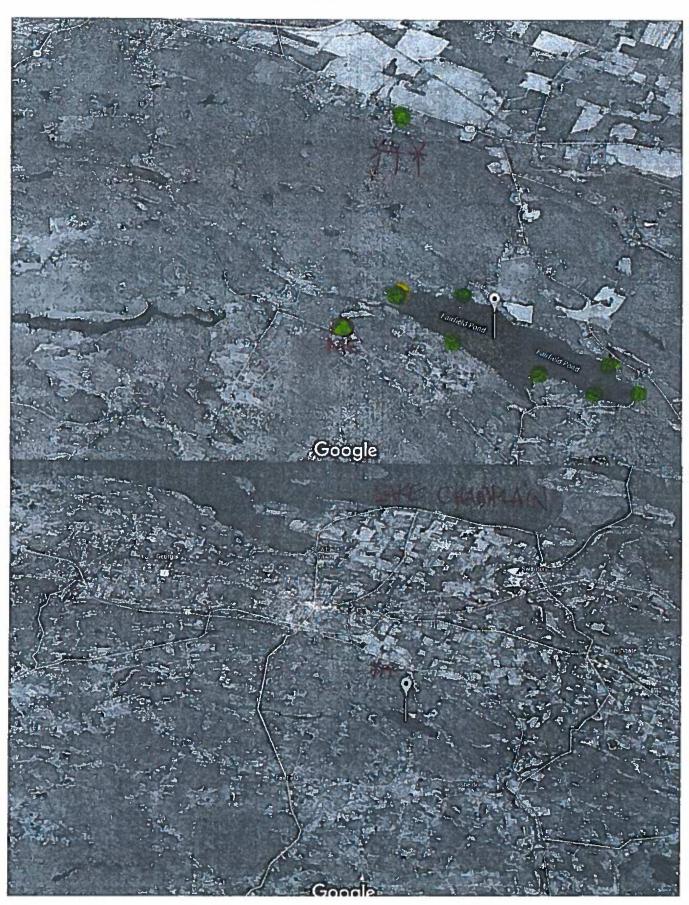
I have lived at the southern end of Fairfield Pond for over four decades observing wildlife activity. It always seemed that flight to and from the pond went through the proposed turbine site. It was my intention to test this thesis through a more dedicated process of observation. My associates for this project were experienced bird enthusiasts all with at least 30 years in the field. The rest were neighbors around the pond who'd also been there for well over 30 years. Our observations were such that whenever birds (mostly Canada geese) took flight from the pond, they would follow a south/westerly path at low altitudes over the Rocky Ridge turbine site. Flocks either came out of the North or out of the cedar swamp (RTE #36). Some came from the east over the ridge. Birds rested at the pond and fed in adjacent fields. Then their flights went over Rocky Ridge toward the larger flight path that is Lake Champlain. During this fall season, my associates and I personally observed over 6000 GEESE in addition to mergansers, eagles, herons, loons, owls, cormorants, and osprey.

It is our hope that this information will assist the Agency of Natural Resources, the PSB, and the Dep't of Fish and Wildlife in having a more complete picture of wildlife activity vis a vis the Swanton Wind



Gogle Maps Fairfield Pond





SEPT 23- 12:15 - SANTEC VISIT 5 - Spoke with Noel (Santec) at Rocky Ridge Rd. He pointed out an eagle rising in thermals above ridge in area of proposed turbines. We observe a few birds that appear to come from direction of Fairfield Pond. Elevation 300-500ft.

SEPT 25 - SANTEC VISIT 6 -

1:30pm - Runs from 9am-4pm. Noel no seeing much activity today. Saw a few GEESE come from direction of Lake Champlain. Most other flocks of GEESE migrating at high levels. Flying north/south. Maryann and Christine, who live at Rocky Ridge, each observe flocks coming over ridge from east to west in very early morning--before Santec sets up.

SEPT 27 - 11:30am - I observe flock of 27 CANADIAN GEESE

fly over my meadow toward proposed turbine area to west, at about 200-300ft. 10am - Neighbor, Mark Arel,

observes 20 GEESE fly over his property coming from cedar swamp heading west toward Rocky Ridge.



OCT 2 - Afternoon on the pond, Maryann and I observe 125-150 GEESE at the island swimming toward east shore (Swizlers Point). We see same geese coming out of adjacent north cove heading back to the island.



10/2/15

observe 100+ GEESE fly thru the cove -- at treetop level -- heading in their usual direction W/S/W toward
Champlain right thru proposed turbine locations.

OCT 5 - 9am - I find 3 LOONS by

camp. We look at each other for a few minutes before they dive not to reappear. I go home. OCTOBER S - SANTEC VISIT 7 - 12noon - Birdgirl is a Rocky Ridge. Not seeing much activity, she has recently seen a flock she estimates at 50 GEESE. Before birgirl's arrival, Maryann, from her house, has seen a flock she estimates over 100 GEESE passing low over the ridge heading toward the pond.

5:30 pm - At the pond. I open truck door and while dog is running around the point, I hear honking from the water. I observe 75+ GEESE between me and the island. Two minutes and they're off. Circling the island once, they pass thru the cove at 100ft above treetops, heading west toward BLADE CITY as

usual. (pics)

OCT 17 - 2:290pm - Step out of my vehicle at home to witness 150 (+ or-) GEESE flying about 100ft above treeline coming from direction of the pond, heading west over Rocky Ridge. No time for pics.

OCT 18 - 8am - Cloudy - BRW observes about 60 GEESE flying low (below cloud)

cover) flying west over meadow toward Rocky Ridge. 12:30pm - I'm leaving for work and observe 150 GEESE (+ or-) coming from direction of Cedar Swamp, heading west toward Rocky Ridge, at tree top level OCT 19 - 1pm - On Rte 105 pear Gallaghers Corner. I watch a large cluster of

OCTOBER 21 - SANTEC

VISIT 8 - 1:45pm - At the pond I observe about 25 merganser DUCKS and 75 GEESE at the island. (pics) At Rocky Ridge, Noel observes1000 BLACKBIRD/STARLINGS and a few RED-WINGED BLACKBIRDS. Said Santec does pre and post surveys for wind projects. Done in 6 meter grids. In Georgia, last survey turned up 1 TAKE. Says this survey here is medium size compared to others done in VT. More work in last few years due to turbine projects.



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fishing in the cove.

OCT 23 - 4pm - 1 observe 37 GEESE at the island. BRW sees OSPREY

OCT 23 - SANTEC VISIT 9 - 3pm - At Rocky Ridge, birdgirl has been seeing
lots of RED-WINGED HAWKS all day. Last week? she says she saw several flocks of 100+ GEESE. Says
she was surprised by the large number of hawks today. She also calls this a medium sized

project.

OCT 26 - SANTEC VISIT 10 - 1pm - Last call for bird survey at Rocky Ridge. Noel
observes 180+ SNOW GEESE at about 10,000ft. Takes pic with his cellphone. Says last two visits have
shown increased bird activity. Says no survey done pre-construction at Georgia Mt. by his company. On

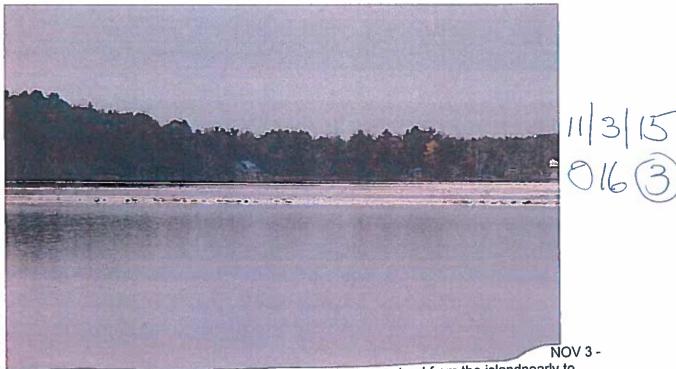
OCT 27-11am - At the pond I observe 150+ GEESE strung out near the island. Hoping for movement I scream 'bang' to no avail. I drive to neighbor's and we return with a shotgun. I fire down three times into the water in front of me at the point hoping for bird flight to track. Instead, geese slowly drift to center of pond. 12:15pm - I go to Swizlers Point on east side, but geese have moved back toward island (pics). Back to camp and as I arrive I see geese flying over me west and low as they head toward Rocky Ridge. No pics thru the trees. Hours later, neighbors Clark & Carole Palmer are up in the beaver pond behind their house just below Rocky Ridge on east side. They observe 2 flocks 70+ GEESE in all. One low flying flock goes east to west over Rocky Ridge. Other flock comes from direction of Fairfield pond at treetop level heading



0/27/15

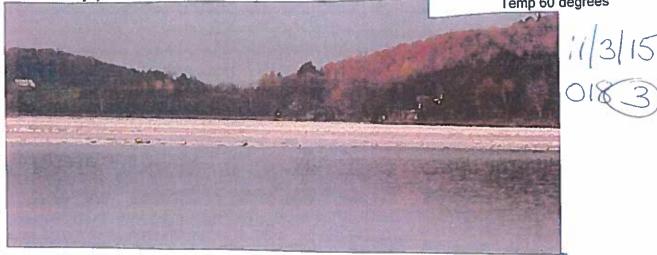


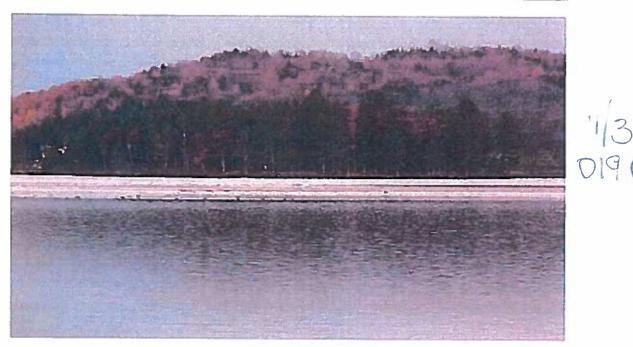
OCT 30 - Dark. Lots of geese, by the sound, either in the south cove or adjacent swamp. Noisy in my back yard. So at 8am - OCT 31 - I'm at the pond. All is silent in early mist. The geese are gone. I'm off to Halloween for the rest of the day costumed as BIRDMAN.

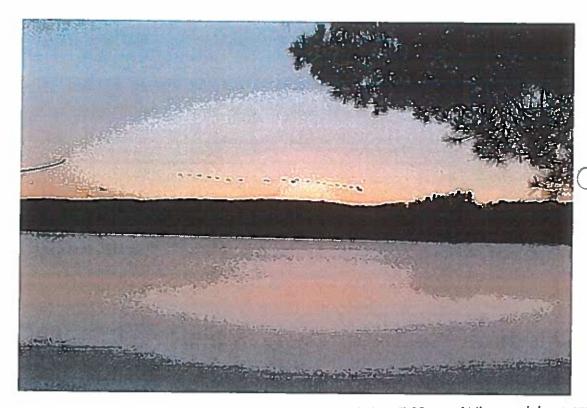


4pm - At the pond Lots of noise. Fading light. Two long lines of geese extend from the islandnearly to opposite shore. Along with thick lines of geese, there are another thin row or two toward beach. I observe (w/ bino6ulars as always) at least 400+ GEESE. 8pm - Plenty of honking. Hope to be back at daybreak

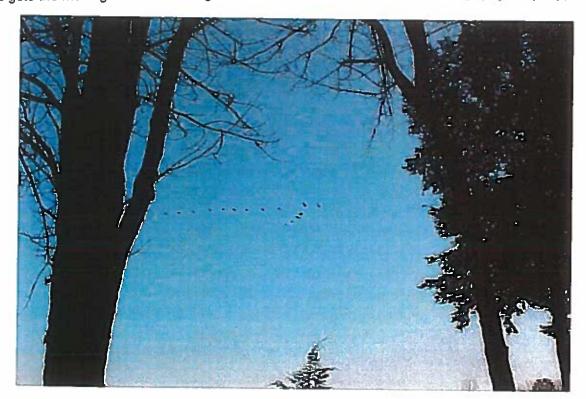
Temp 60 degrees







NOV 4 - 7:20am - At the pond. I see small flocks taking off. 50+ go over the ridge. 35 (+ or-) GEESE head toward Yates cornfield--west side. 70 (+ or-) GEESE head west over Rocky Ridge. About 35 more GEESE fly over me toward swamp before turning west over ridge. All at treetop level. No more activity and no birds visible on pond. At 8am I go home. 4:35pm, back at pond near camp. Lots of honking. Another long line of geese from island to east shore (Swizlers) and a lot more at beach end. I'm greeted at Swislers by 250 GEESE(+ or-). Soon gunfire from hunters gets the moving s/w after circling beach toward Rocky Ridge. At about 200ft (MVC- 026, 027, 029,



027(

NOV 5 - 11:25am - At the pond at camp (south end). Two flocks fly in from the ridge heading e/ne land at the pond. Flock 1 is 65+ and flock 2 is 50+. From Swizlers I count180 GEESE (+ or-) in the water. (MVC -034, 035) 4:10pm Quiet no birds on pond. After awhile, 67 GEESE at island. More keep arriving from w/s/w landing in pond. GEESE 16@100ft, 27@100ft, 8@100ft, 3@200ft, 2@100ft., 17@10oft, 10@200ft, 1@100ft, 6@100ft. Now getting dark. 5:07pm tho more geese still arriving. I go home.



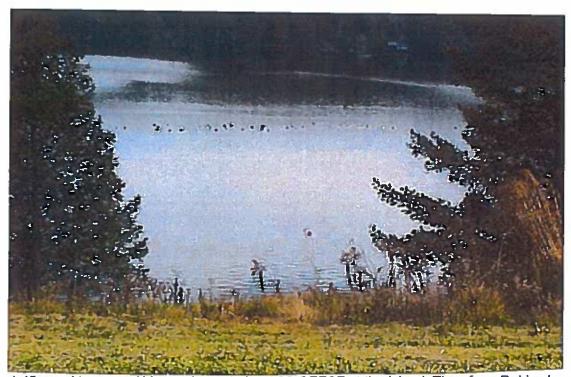
11/5/15

NOV 6- Rain. No birds at pond. NOV 7 - 1:30pm - Posting land at home. Can hear gunfire in the swamp. Visit to camp yields no birds on pond. Neighbor Wilcox on Sweet Hollow Rd. saw large flock flying low overhead west toward Rocky Ridge. NOV8 - 12:30pm Geese at pond near island. 125+ GEESE. From Dubies, I yelled "bang". Only one flew away. Rest stayed put and were still there island. I observe around 200+ GEESE fly from N/E to W/S/W flying over Dubies. (MVC-040, at 4pm when I return. I observe around 200+ GEESE fly from N/E to W/S/W flying over Dubies.





NOV 10 - 12:45pm - At the pond camp . No birds. 3:45pm - I observe a line of geese by the beach. At the noth end it looks like 65+ GEESE. Light nearly gone at home I see a V of 50+ GEESE 1/2 mi. to the west. Birds coming over Rocky Ridge heading toward Fairfield pond (MVC-043).



11/12/15

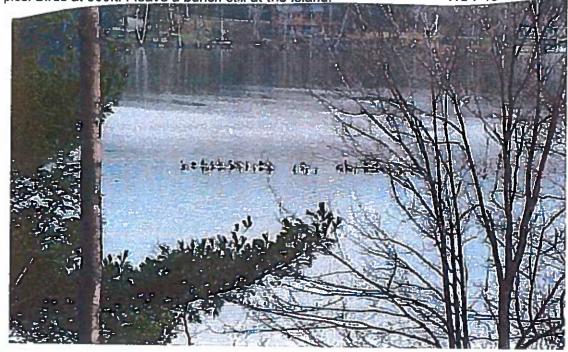
NOV.11 - 1:45pm - At camp w/ binocs, I count about 90 GEESE at the island. Then from Dubies I count another 100+ GEESE hiding behind the island and on the island.

NOV 12 - 11:45am -

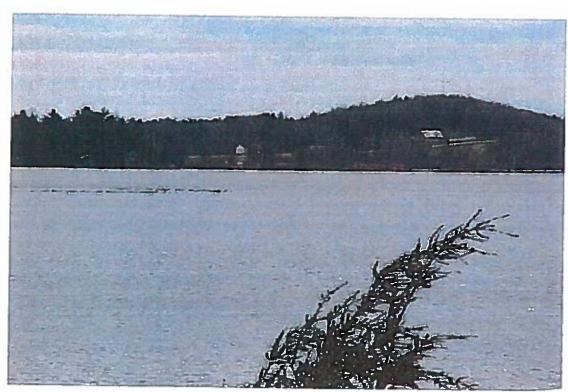
At the pond. I count at least 150-200 GEESE at the island. Rain begins before my count is complete as 100+ birds take off circling the beach and head south past Dubies and westerly toward Rocky Ridge. No

time for pics. Birds at 300ft. I leave a bunch still at the island.

NOV 13 Rain

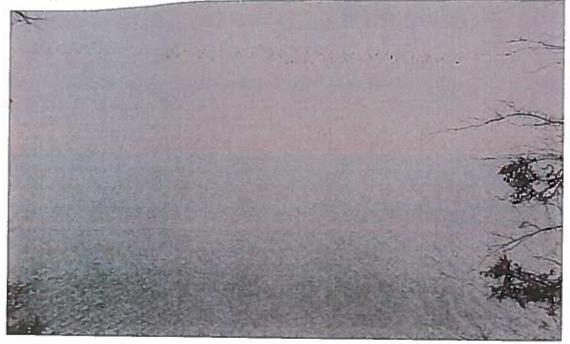


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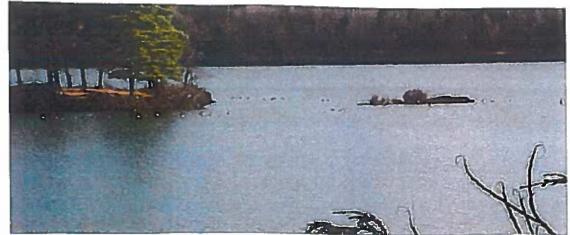


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NOV14- -2:05pm - No birds. So I'm cleaning at camp when 55 (+ or-) GEESE fly over at 150ft coming south from beach. I hear more geese. Now I watch 100 birds land near island. I go. From Dubies at 2:30pm, I observe over 325 GEESE before I loose count (MVC-051, 052, NOV 15 - 8:20pm - No birds at the pond today, but now from the backyard I hear honking out there.



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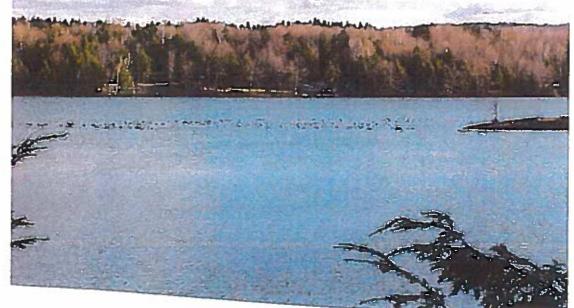


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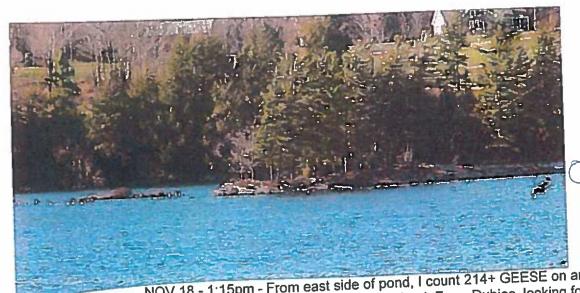


11/16/15

NOV 16 - 1:20pm - From camp with binocs, I count over 250 birds around the island. 1:35pm - From Dubies I view over 325 GEESE. Better angle/sight line. After some quick pics, geese abandon island and drift away toward center of pond. I'm out of pics....as I'm heading home, as a small group of 15 geese take off and head s/w toward Rocky Ridge. Rest of geese remain in pond. (MVC-057. 058, 059, 060).



11/16/15



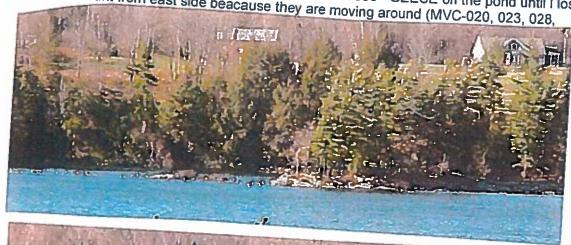
NOV 18 - 1:15pm - From east side of pond, I count 214+ GEESE on and around island. Easy to count as they were strung out on both sides of island. From Dubies, looking for same flock when honking increases and geese take flight over Dubies heading west toward Lake Champlain. At 200 ft, head toward path of turbines. (MVC-012. 015, 017)



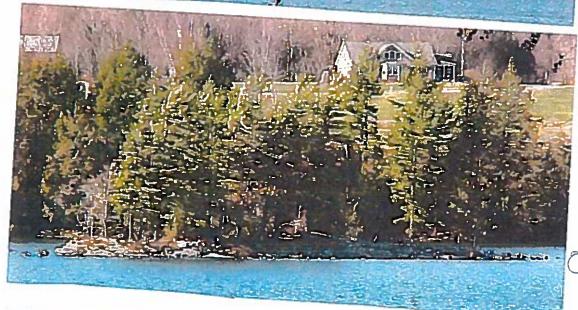


geese on pond.

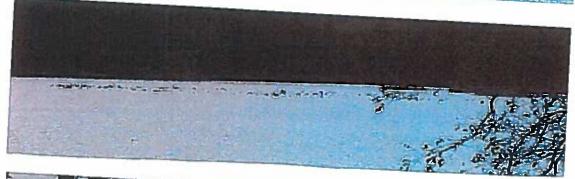
NOV20 - 12:34pm - From east side of pond (At Bapps camp), I count 3:40pm - Harder to count from east side beacause they are moving around (MVC-020, 023, 028,







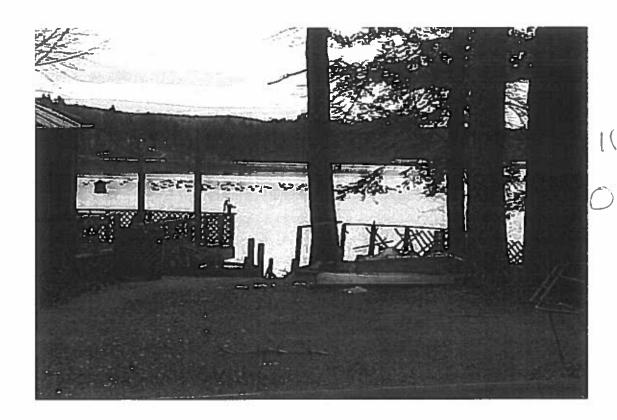
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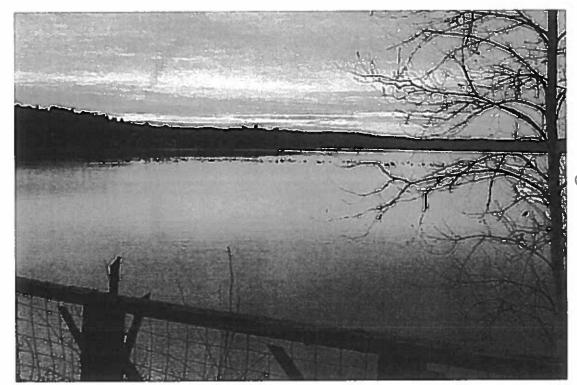
11/20/15



11/20/15



NOV 21 - 10:46am - I count 185+ GEESE along west shore near beach. This in response to call from Tammy White who saw same flock she'd estimated at 200 birds. (MVC-030, 031,



11/2/11/



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032).

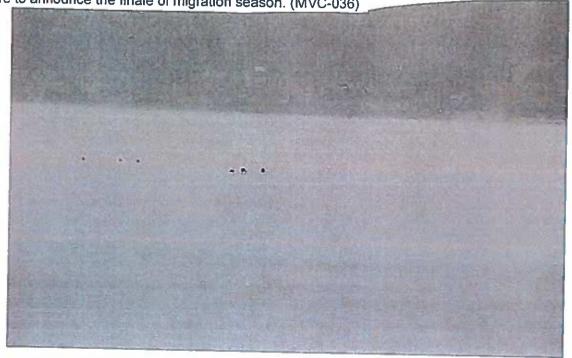
NOV 22 - 11:25am - Windy and gusty. From east shore, I count 67 birds at island. Likey more behind protected from the wind. I'll check west side later. 2:55pm - From Dubies, now count104 GEESE at island.

NOV 23 - 10:05am - No geese near island. Check later.

1:46pm Still no geese at island. Minutes later from the beach, I count 231+ GEESE nearby and toward the west shore. Lots of dunking in weeds for food. (MVC-034)

NOV 24 - 11:21am - Light

snow and overcast. Nothing at the island. At the beach, I observe 6 LOONS feeding in same area as geese yesterday. Reminds me of early visit in the mist finding only Lenny the Lonely Loon. I wonder if loons today are here to announce the finale of migration season. (MVC-036)



11/24/15



11/30/15

Nothing in the morning, but now I count about 50 GEESE half way between the beach and the NOV 26 - 11:02am - From east shore, I count 78 GEESE on and around the island and likely more behind it I cannot see. When I turn around to leave, the road is blocked by two large deer observing me. 4:00pm. - When I return geese are gone from pond. 11:20am - Overcast and 55 degrees. No geese at island viewed from east shore. 3:30pm - From east shore, I count 100+ GEESE near island. A short time later from the beach, I observe birds from the island takeoff heading toward beach and then turning w/s/w toward Lake Champlain in a path over Rocky Ridge. 3:50pm - Back at camp, Matt Wels and I see 12 MERGANSER DUCKS fly out of cove heading toward NOV28 - 2:10pm - Spitting snow 30 degrees - One lonely LOON at the beach island. Am I down to "a loon-a-day"??? NOV 29 - Snow. No geese at the island. Apparently vesterday at CADYs camp, they saw 70+ GEESE. Today in the AM they saw a large flock at the beach (VIDEO?) 4:11pm - At the beach, I think I see two loons. Oops! It's two beaver feeding in the weeds there. However, along the east shore I count 127 GEESE. As I pull into my yard, on this final day of rifle season, Nov 30 - 11:37am - Sunny there appears the only deer I'll see in my yard in last two weeks. 28 degrees - From the beach, spread out from east shore to west shore, I count 470+ GEESE. Lots of honking. 3:02pm - From camp, I count about 40 MERGANSER DUCKS in the cove. They take flight before I finish my count. (MVC-002, 004)



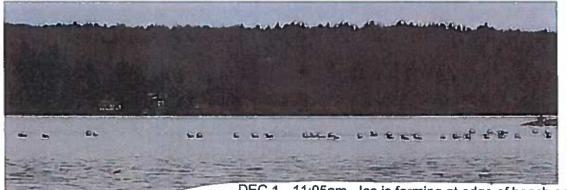
11/30/15



12/4/15



12/4/15



12/4/15

beyond I count 34 GEESE. DEC 1 - 11:05am - Ice is forming at edge of beach and just DEC 2 - 12:30pm - Steady rain. At the beach, no activity. 3:17pm - I disturb about 64 MERGANSER DUCKS who fly out of the cove toward the island.

DEC 3 - 4:18pm - No ducks in the cove, but I hear honking. Geese at the island w/ more arriving. From east shore, I count about 140+ GEESE on and around and somewhat behind the island....and onedeer on the east shore road.

DEC 4 - 11:15am - East shore and beach no birds. 2:46pm - From east shore it looks like a couple of hundred geese at the island. From Dubies, I count 366 GEESE and before I finish count, about 100 birds take flight heading south and mostly west toard Rocky Ridge. (MVC-014, 015,

016, 017) Check w/ Maryann about two flocks going over ridge this week.

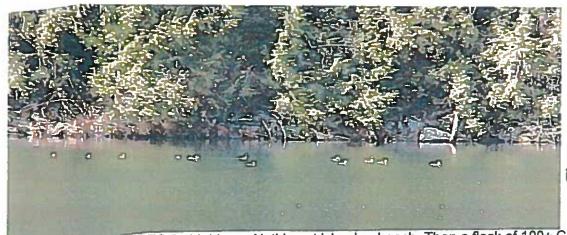


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12:20pm - 50 degrees - From the beach, stretched along west shore, I count 500+ GEESE in several clusters. Some taking off heading south and then west toward ridge. Some circling and then landing again.



Lots of honking. (MVC-018) 4:16pm - From east shore-BAPPS- I count 62+ GEESE heading thru cove and west in fading light. Flying at treetop leve. (MVC-019). At same time,12 DUCKS pass overhead into cove. 4:55pm - At home lots of honking and then flock of geese from pond flying low head over the ridge line.



DEC 6- 11:11am - Nothing at island or beach. Then a flock of 100+ GEESE fly south low over beach and appear to land in wetlands east and just below Rocky Ridge. 12:28pm - I count 28 MERGANSER DUCKS in the cove (MVC-024) 3:12pm - From the beach I see birds strung out from wes shore. They move toward BOCASH camps on east shore and are observed by Bocash who is cleaning deer from yesterdays opening of black powder season. I count 362+ GEESE and then return home to find 2 deer







12/10/15

DEC 10 - 11:52am DEC 8-10:30am - 2 DUCKS. DEC 9 - No birds. GEESE. Nothing at the beach. Near the island I count 88 GEESE. 3:42pm - Birds still there. (MVC-*** Last weekend (DEC 5?) DEC 11 - 11:10am - Windy & 50 degrees. No birds. 029). Dan Pipes, while hunting around south cove, said the honking from the pond was so loud that it was causing the deer herd he was tracking to scatter. Distracted by geese. Then he watched large flock take off heading DEC 12 - 11am - Windy. 50 degrees. No south and west over Rocky Ridge. DEC 13 - 1:47pm - No wind. Temp 39 degrees. Nothig at the island. At the beach, I count 99 GEESE feeding in the shallows. DEC 14 - 2:14pm - Very windy. 55 degrees. No birds on pond. DEC 16 - 11am - Calm. Temp high 30s. At the beach, 2 DEC 21 - 2:20pm - About 12 MERGANSER DUCKS fly out of beaver and 2 DUCKS.

cove as I'm heading toward my dock.

From: <lumar@myfairpoint.net>

Subject: Nancy Dunne Diary GEESE September 15th/ October 10th - 2015

Sent date: 01/06/2016 07:40:57 PM

To: <lumar@myfairpoint.net>



9/16 - 9:30 am - Heard on the pond. 9/17 - 6:45am -9/15 - 6:30 am - Heard on the pond. Heard close by from south & west. 7:45am - Again hear over beaver swamp behind my camp in cove. 9/18 - 6:50am - Behind me heard them at the beaver swamp. 9:30am - -1/2 mile south of cove on camp 9/19 - 7:10am - Saw 2 GEESE road saw 4 GEESE fly over heading s/w toward proposed towers. flying to south end of pond and beyond coming down west side of pond. 9/20 - 12:20pm -Saw 14 GEESE heading from beaver swamp west over south tip of pond toward proposed wind 9/21 - 7:50am - Heard birds in beaver swamp. 10:20am - Saw 23 GEESE on west side towers. of cove just ahead of the island and 10:30am they are joined by 2 GEESE from the swamp. 10:35am - All 25 birds lift off and circle once above and head to south end of pond and off in s/w direction over proposed 9/25 - 9:30am - Heard 9/24 - 10:00am - Heard birds in beaver swamp. flock of birds from north flying south toward me, but ended up landing half way here on west side, possibly on farmer's field (Yates). 10:10am - Saw 27 GEESE coming from swamp fly over me at south end. Head west over area of proposed turbines. 8:30pm - In dark, heard birds settling into the 9/28 - 7:15am - 3 GEESE from north end flying s/w to fields 9mid area swamp. west side of pond. 10:45am - Saw 12 GEESE come from swamp heading n/w to farm fields on west side of pond. 11:00am - 100 GEESE circled so end of pond heading toward farm fields on west side of pond. 11:50am - 25-30 GEESE heading south from mid-pond fields following along west side of pond. 9/29 - 7:00am - Heard geese. 7:50am - 2 Geese fly out of swamp toward mid-pond same farm 9/30 - 5:45pm - Approximately 150 GEESE fly overhead from n/e to fields. 10/1 - 7:45am Heard birds at south end in the swamp. 10:am - A settle into the swamp. group of 80-90 GEESE fly from swamp to west side farm fields. 10:35am - Another two sets go to west side 10/6 - 6:30am - Saw 72 GEESE in the cove. Also heard fields, 20 & 32 GEESE. 10/7 - 8am - Saw 63 GEESE at south end of pond birds in the swamp. ahead of the cove. 9:30am - Saw about 50 GEESE from this group fly s/w from 10/8 - 2:30pm - Saw 25 GEESE south end of pond. 5pm - 10 more GEESE in cove. 7:30pm - In the dark, heard the geese all to others to 10/9 - 8:30am - About 20 GEESE in cove, west side of land. 10/10 - 8am - 75 birds over south end fly into cove. 25 more birds pond. still at mid-lake. 8:15am - After gunfire in the swamp75-80 GEESE head s/w over proposed wind turbine

9/16/2015 - Fairfield Pond, Fairfield, VT - 2:00 p.m. - Loons, Canada Geese and Blue Heron

9/16/2015 - Fairfield Pond, Fairfield, VT - 2:30 p.m. - Cormorant

9/21/2015 - Fairfield Pond, Fairfield, VT - 10:00 a.m. - Loon

9/23/2015 - 11 Rocky Ridge, Swanton, VT - Raptor

9/23/2015 - Route 36, Fairfield, VT - Flock of 200 +/- Canada Geese

9/24/2015 - 11 Rocky Ridge Road, Swanton, VT - Two flocks of Canada Geese flew from Fairfield Pond directly over Rocky Ridge right at ridge line flying over Rt 105 to Scholan Road cornfields.

9/28/2015 - Fairfield Pond, VT - 6:19 p.m. - Canada Geese

10/1/2015 - Fairfield Pond, Fairfield, VT - 1:35 p.m. - Saw two flocks of Canada Geese (250 total) on water.

10/1/2015 - 11 Rocky Ridge Rd, Swanton, VT - 6:30 p.m. Saw two flocks of Canada Geese fly over Rocky Ridge. One flock flew over my home heading directly toward and over the ridge line to Fairfield Pond. The other flock came from the Fairfield Pond side right over ridge line toward and over my house. The geese are very audible as they honk and make it very easy to hear them and see the direction of their flight.

10/2/2015 - Fairfield Pond, Fairfield, VT - Three groups of Canada Geese (150 +/-)

10/6/2015 - 11 Rocky Ridge Road, Swanton, VT - 6:10 p.m. - Two flocks of Canada Geese flew from Fairfield Pond directly over ridge line passing over house heading toward Gallagher's Corner south on Route 105, St Albans, VT.

10/7/2015 - Fairfield Pond, VT - 10:00 a.m. - Canada Geese
11 Rocky Ridge Road, Swanton, VT - 5:55 p.m. - Two flocks of
Canada Geese flew from Fairfield Pond directly over ridge line passing
over house.

10/16/2015 - Scholan Road, Swanton, VT (Across from Rocky Ridge Road off RT 105) - Observed while out walking) - 4:47 p.m. - 75-100 Canada Geese flew directly over ridge line from Fairfield Pond to land in cornfield along Scholan Road to eat. They returned to Fairfield Pond as a flock when done eating.

10/18/2016 - 11 Rocky Ridge, Swanton, VT - 3:47 p.m. - two large flocks of Canada Geese flew directly over ridge line from Fairfield Pond side over house toward rail trail / Scholan Road directly.

10/19/2015 - 11 Rocky Ridge Road, Swanton, VT - 4:34 p.m. - Two flocks of Canada Geese flying from Fairfield Pond side directly over ridge line toward house very very close to ridge line. Picture taken near garage.

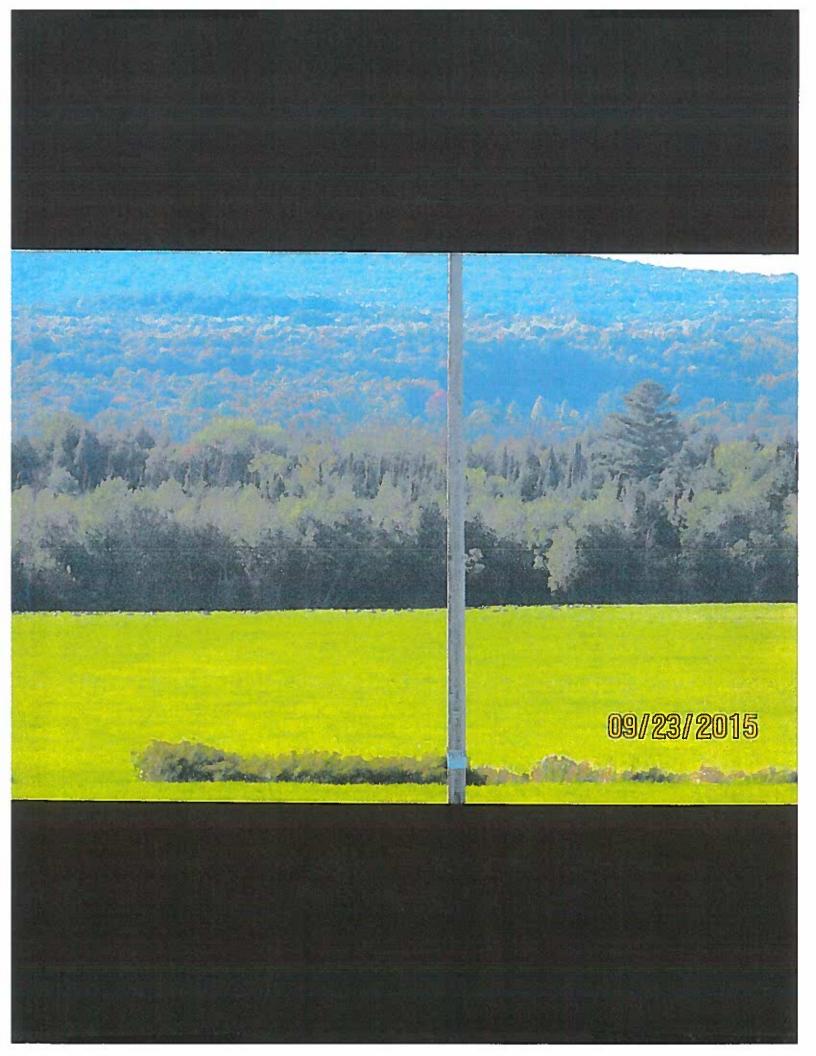
10/27/2015 - 11 Rocky Ridge Road, Swanton, VT - 5:57 p.m. - huge flock of geese flew over house from Fairfield Pond side heading south.

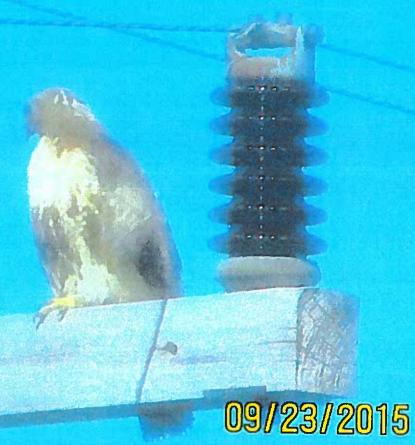
Nest on Fairfield Pond.

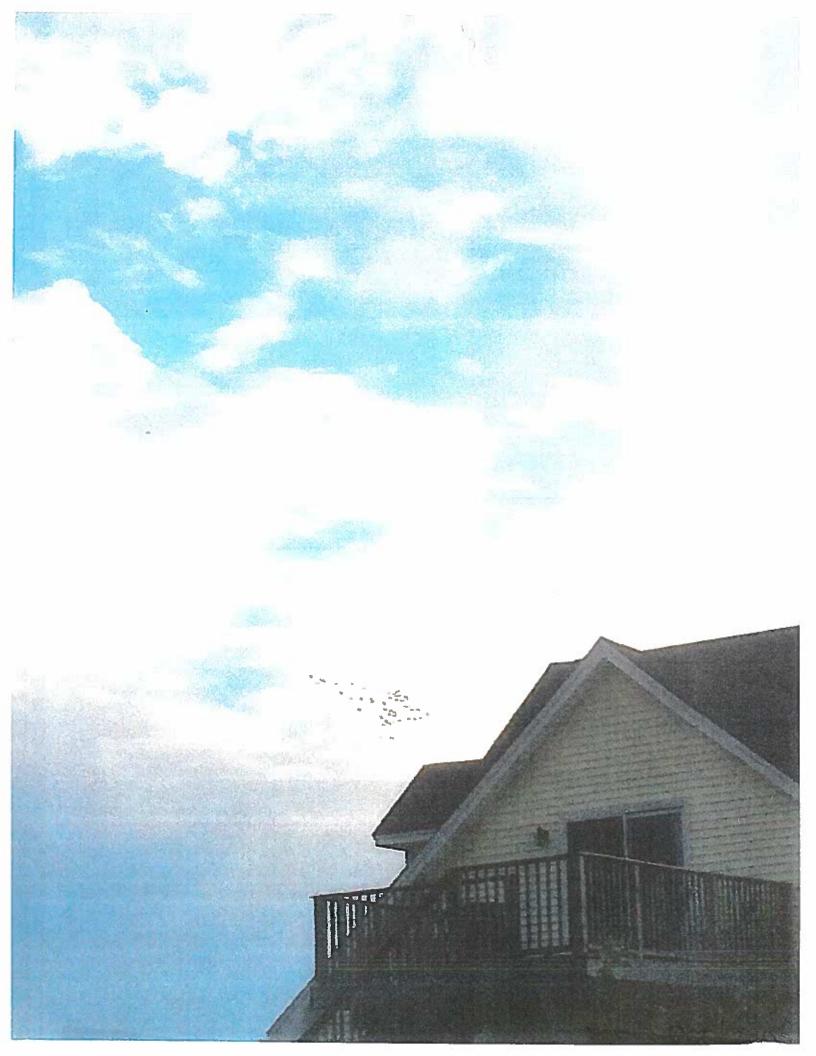
09/16/2015

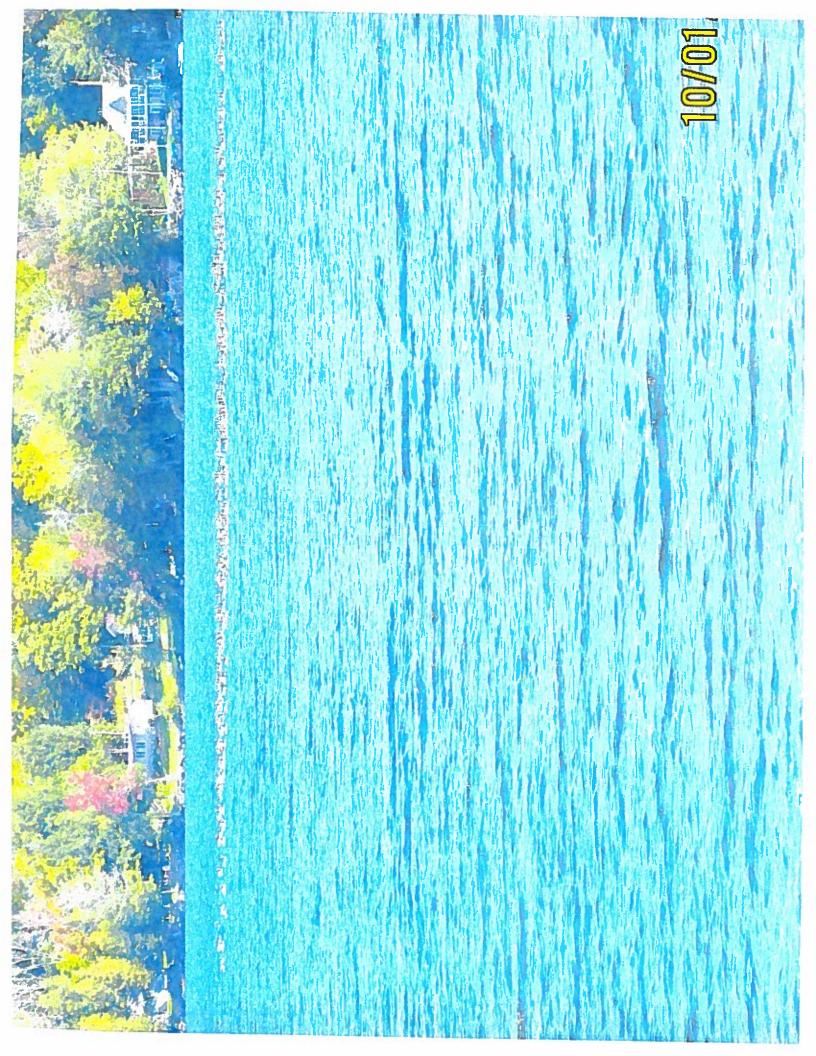
09/16/2015













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